



Atlantic Richfield Company  
(a BP affiliated company)

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Phone: (925) 299-8891  
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R0494

October 28, 2005

Re: **Third Quarter 2005 Groundwater Monitoring Report**  
**ARCO Service Station #2111**  
**1156 Davis Street**  
**San Leandro, California**  
**ACEH File/Case #R0-494/STID 774**

I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by:

Paul Supple  
Environmental Business Manager

Alameda County  
NOV 02 2005  
Environmental Health



October 28, 2005

Ms. Donna Drogos  
Alameda County Environmental Health (ACEH)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

**Re: Third Quarter 2005 Groundwater Monitoring Report  
ARCO Service Station #2111  
1156 Davis Street  
San Leandro, California  
ACEH File/Case #R0-494/STID 774**

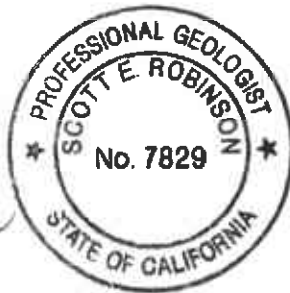
Dear Ms. Drogos:

On behalf of Atlantic Richfield Company, a BP affiliated company, URS Corporation (URS) is submitting the *Third Quarter 2005 Groundwater Monitoring Report* for ARCO Service Station #2111, located at 1156 Davis Street, San Leandro, California.

If you have any questions regarding this submission, please call (510) 874-3280.

Sincerely,

**URS CORPORATION**



Scott Robinson, P.G.  
Project Manager

Alameda County  
NOV 02 2005  
Environmental Health

Enclosure: Third Quarter 2005 Groundwater Monitoring Report

cc: Mr. Paul Supple, Atlantic Richfield Company (RM), electronic copy uploaded to ENFOS

# REPORT

## THIRD QUARTER 2005 GROUNDWATER MONITORING REPORT

ARCO SERVICE STATION #2111  
1156 DAVIS STREET  
SAN LEANDRO, CALIFORNIA

*Prepared for*  
RM

October 28, 2005

### **URS**

URS Corporation  
1333 Broadway, Suite 800  
Oakland, California 94612

Date: October 28, 2005  
Quarter: 3Q 05

**THIRD QUARTER 2005 GROUNDWATER MONITORING REPORT**

Facility No.: 2111 Address: 1156 Davis Street, San Leandro, California  
RM Environmental Business Manager: Paul Supple  
Consulting Co./Contact Person: URS Corporation / Scott Robinson  
Primary Agency: Alameda County Environmental Health (ACEH)  
ACEH File/Case #: R0-494/STID 744

**WORK PERFORMED THIS QUARTER (Third – 2005):**

1. Prepared and submitted the Second Quarter 2005 Groundwater Monitoring Report.
2. Performed third quarter 2005 groundwater monitoring event on August 1, 2005.
3. Checked MW-2 monthly for free product.
4. Traffic well box replaced for well MW-6.

**WORK PROPOSED FOR NEXT QUARTER (Fourth – 2005):**

1. Prepare and submit this Third Quarter 2005 Groundwater Monitoring Report.
2. Perform fourth quarter 2005 groundwater monitoring event.
3. Check MW-2 monthly for free product.
4. Begin construction of Dual Phase Extraction (DPE) / Groundwater Extraction and Treatment (GWET) system.
5. Perform offsite investigation.

**SITE SUMMARY**

Current Phase of Project: Groundwater monitoring/sampling/interim remediation  
Frequency of Groundwater Sampling: Quarterly: Wells MW-1 through MW-5 and MW-8  
Annually (3<sup>rd</sup> Quarter): MW-6  
Frequency of Groundwater Monitoring: Quarterly  
Is Free Product (FP) Present On-Site: No  
FP recovered this quarter (to 6/20/05): 0 gallons  
Cumulative FP Recovered from  
6/28/99 to 9/16/05: 1.44 gallons  
Current Remediation Techniques: Bailing free product as needed from MW-2  
Approximate Depth to Groundwater: 13.79 (MW-6) to 16.77 (MW-1) feet  
Groundwater Gradient (direction): West to Northwest  
Groundwater Gradient (magnitude): 0.006 to 0.004 feet per foot

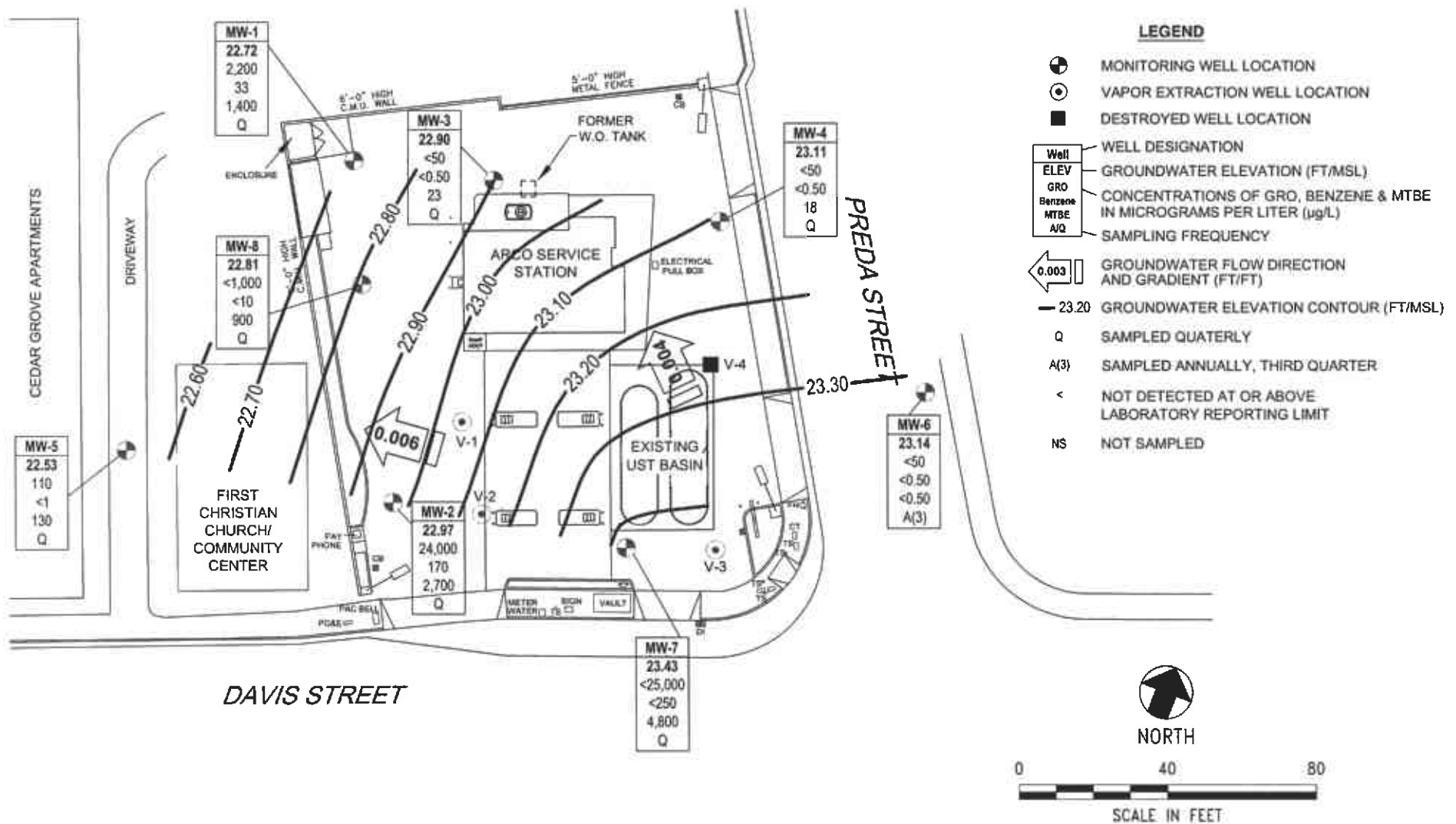
**DISCUSSION:**

Gasoline range organics (GRO) were detected at or above the laboratory reporting limits in three of the eight wells sampled this quarter at concentrations ranging from 110 micrograms per liter µg/L (MW-5) to 24,000 µg/L (MW-2). Benzene was detected at or above the laboratory reporting limit in two wells at concentrations of 33 µg/L (MW-1) and 170 µg/L (MW-2). Ethylbenzene was detected at or above the laboratory reporting limit in two wells

at concentrations of 110 µg/L (MW-1) and 1,100 µg/L (MW-2). Xylenes were detected at or above the laboratory reporting limits in one well at a concentration of 2,700 µg/L (MW-2). Methyl tert-Butyl ether (MTBE) was detected at or above the laboratory reporting limit in seven wells at concentrations ranging from 18 µg/L (MW-4) to 4,800µg/L (MW-7). Tert-Amyl methyl ether (TAME) was detected at or above the laboratory reporting limit in three wells at concentrations ranging from 1.9 µg/L (MW-3) to 40 µg/L (MW-1). Tert-Butyl alcohol (TBA) was detected at or above the laboratory reporting limit in one well at a concentration of 1,600 µg/L (MW-5). No other fuel components were detected at or above the laboratory reporting limits in wells sampled this quarter.

#### **ATTACHMENTS:**

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – August 1, 2005
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Fuel Additive Analytical Data
- Table 3 –Groundwater Flow Direction and Gradient
- Table 4 – Approximate Cumulative Floating Product Recovered (1999 – Present)
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody Records
- Attachment C – Historical Groundwater Data
- Attachment D – Error Check Reports and EDF/GeoWell Submittal Confirmations
- Attachment E – Well Repair Field Sheet



NOTE: SITE MAP ADAPTED FROM DELTA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

	Project No. 38487175 ARCO Service Station #2111 1156 Davis Street San Leandro, California	<b>GROUNDWATER ELEVATION CONTOUR          AND ANALYTICAL SUMMARY MAP</b> Third Quarter 2005 (August 1, 2005)	FIGURE <b>1</b>

**Table 1**

**Groundwater Elevation and Analytical Data**

ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-1	6/26/2000	--		39.6	12.50	26.00	16.46	23.14	--	--	--	--	--	--	--	--
	7/20/2000	--		39.6	12.50	26.00	16.89	22.71	360	110	<0.5	<0.5	2.7	2,100	--	--
	9/19/2000	--		39.6	12.50	26.00	17.62	21.98	290	76	<0.5	<0.5	2.3	1,500	--	--
	12/21/2000	--		39.6	12.50	26.00	17.39	22.21	257	64	2.89	1.31	4.57	1,080/1,060	--	--
	3/13/2001	--		39.6	12.50	26.00	15.70	23.90	<500	52.5	<5.0	<5.0	<5.0	1,430/1,370	--	--
	9/18/2001	--		39.6	12.50	26.00	18.24	21.36	<500	64	7.3	<5.0	52	810/1,100	--	--
	12/28/2001	--		39.6	12.50	26.00	15.95	23.65	<500	<5.0	<5.0	5	22	1,200/1,100	--	--
	3/14/2002	--		39.6	12.50	26.00	16.01	23.59	<50	<0.5	<0.5	<0.5	<0.5	34/40	--	--
	4/23/2002	--		39.6	12.50	26.00	15.43	24.17	<50	<0.5	<0.5	<0.5	<0.5	30	--	--
	7/17/2002	NP		39.6	12.50	26.00	17.50	22.10	<50	1.2	<0.50	<0.50	<0.50	29	6.9	6.9
	10/9/2002	--	c	39.6	12.50	26.00	18.27	21.33	240	4.9	<1.0	4.1	7.0	290	6.5	6.5
	1/13/2003	--	c	39.6	12.50	26.00	15.37	24.23	760	34	11	17	56	300	6.8	6.8
	04/07/03	--		39.6	12.50	26.00	16.61	22.99	<50	<0.50	<0.50	<0.50	<0.50	22	6.8	6.8
	7/9/2003	--		39.6	12.50	26.00	17.27	22.33	<2,500	<25	<25	<25	<25	690	6.7	6.7
	02/05/2004	NP	m	39.49	12.50	26.00	16.28	23.21	2,800	31	<25	<25	<25	1,100	0.90	6.5
	04/05/2004	NP		39.49	12.50	26.00	16.25	23.24	5,800	46	<25	<25	<25	1,700	1.0	--
	07/13/2004	NP		39.49	12.50	26.00	17.57	21.92	<1,000	<10	<10	<10	<10	730	0.50	6.6
11/04/2004	NP		39.49	12.50	26.00	17.78	21.71	560	<5.0	<5.0	<5.0	<5.0	380	0.80	6.5	
01/20/2005	NP		39.49	12.50	26.00	15.50	23.99	670	<5.0	<5.0	<5.0	<5.0	570	0.60	6.0	
04/11/2005	NP		39.49	12.50	26.00	14.82	24.67	<2,500	<25	<25	<25	25	1,100	0.90	6.9	
08/01/2005	NP		<b>39.49</b>	<b>12.50</b>	<b>26.00</b>	<b>16.77</b>	<b>22.72</b>	<b>2,200</b>	<b>33</b>	<b>&lt;10</b>	<b>110</b>	<b>&lt;10</b>	<b>1,400</b>	<b>1.27</b>	<b>7.3</b>	
MW-2	6/26/2000	--	a	37.99	12.00	26.00	14.60	23.39	--	--	--	--	--	--	--	--
	7/20/2000	--		37.99	12.00	26.00	15.14	22.85	95,000	2,300	18,000	2,500	19,000	13,000	--	--
	9/19/2000	--		37.99	12.00	26.00	15.95	22.04	63,000	1,200	6,300	2,000	14,000	19,000	--	--
	12/21/00	--	b	37.99	12.00	26.00	--	--	5,010	360	189	213	626	54,300/89,200	--	--
	12/21/2000	--		37.99	12.00	26.00	15.60	22.39	45,900	--	2,130	1,160	9,460	22,400/24,700	--	--
	3/13/2001	--	b	37.99	12.00	26.00	--	--	<20,000	525	466	408	1,460	91,700/76,000	--	--
	3/13/2001	--		37.99	12.00	26.00	13.77	23.90	3,650	98.1	<5.0	<5.0	6.42	3,590/3,260	--	--
	9/18/2001	--	a	37.99	12.00	26.00	16.86	21.13	--	--	--	--	--	--	--	--
	12/28/2001	--		37.99	12.00	26.00	14.28	23.71	31,000	1,500	3,800	1,300	4,800	9,300/8,800	--	--
3/14/2002	--		37.99	12.00	26.00	14.15	23.84	1,800	25	43	43	270	990/960	--	--	

Table 1

## Groundwater Elevation and Analytical Data

ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-2	4/23/2002	--		37.99	12.00	26.00	13.60	24.39	9,000	220	110	470	2,500	8,500	--	--
	7/17/2002	NP	a, c	37.99	12.00	26.00	15.75	--	74,000	280	290	820	10,000	19,000/0.4	6.8	6.8
	10/9/02	NP	g	37.99	12.00	26.00	16.69	--	--	--	--	--	--	--	--	--
	1/13/03	--	g, h	37.99	12.00	26.00	13.59	24.61	--	--	--	--	--	--	--	--
	04/07/03	--	g, h	37.99	12.00	26.00	14.70	23.69	--	--	--	--	--	--	--	--
	07/09/03	--	g, h	37.99	12.00	26.00	15.48	22.57	--	--	--	--	--	--	--	--
	02/05/2004	NP	g,m	37.86	12.00	26.00	14.43	23.53	--	--	--	--	--	--	--	--
	04/05/2004	NP		37.86	12.00	26.00	14.35	23.51	2,300	33	<5.0	<5.0	200	750	0.60	--
	07/13/2004	NP		37.86	12.00	26.00	15.79	22.07	59,000	380	<50	2,100	7,900	5,800	0.30	6.4
	08/31/2004	--		37.86	12.00	26.00	15.89	21.97	--	--	--	--	--	--	--	--
	11/04/2004	--	g, h	37.86	12.00	26.00	15.92	21.94	--	--	--	--	--	--	--	--
	01/20/2005	NP	o	37.86	12.00	26.00	13.71	24.15	30,000	450	<50	1,300	3,300	7,000	0.70	6.2
	04/11/2005	NP		37.86	12.00	26.00	12.70	25.16	11,000	170	<50	580	630	2,700	0.90	6.8
	08/01/2005	NP		37.86	12.00	26.00	14.89	22.97	24,000	170	<50	1,100	2,700	2,700	0.64	6.9
	MW-3	6/26/2000	--		39.32	12.00	26.00	15.96	23.36	--	--	--	--	--	--	--
7/20/2000		--		39.32	12.00	26.00	16.42	22.90	<50	<0.5	<0.5	<0.5	<1.0	130	--	--
9/19/2000		--		39.32	12.00	26.00	17.18	22.14	190	17	<0.5	1.4	2.4	160	--	--
12/21/2000		--		39.32	12.00	26.00	16.97	22.35	187	17.8	<0.5	2.47	2.5	143/125	--	--
3/13/2001		--		39.32	12.00	26.00	15.17	24.15	72.4	2.83	<0.5	<0.5	<0.5	126/122	--	--
9/18/2001		--		39.32	12.00	26.00	17.81	21.51	140	6.4	<0.5	3.5	1.6	110/75	--	--
12/28/2001		--		39.32	12.00	26.00	15.44	23.88	130	5.9	<0.5	0.99	0.55	90/63	--	--
3/14/2002		--		39.32	12.00	26.00	15.50	23.82	<50	<0.5	<0.5	<0.5	<0.5	100/88	--	--
4/23/2002		--		39.32	12.00	26.00	14.96	24.36	<50	<0.5	<0.5	<0.5	<0.5	77	--	--
7/17/2002		NP		39.32	12.00	26.00	17.09	22.23	<50	<0.50	<0.50	<0.50	<0.50	47	7.2	7.2
10/9/2002		NP		39.32	12.00	26.00	17.87	21.45	<50	<0.50	<0.50	<0.50	<0.50	26/29	7.2	7.2
1/13/2003		NP	l (Toluene and MTBE)	39.32	12.00	26.00	14.78	24.54	<50	<0.50	<0.50	<0.50	<0.50	59	6.8	6.8
04/07/03		NP		39.32	12.00	26.00	16.15	23.17	88	<0.50	<0.50	<0.50	<0.50	75	7.0	7.0
7/9/2003		--		39.32	12.00	26.00	16.79	22.53	100	<0.50	<0.50	<0.50	<0.50	52	6.5	6.5
02/05/2004		NP	m	39.19	11.90	26.00	15.66	23.53	240	<0.50	<0.50	<0.50	<0.50	37	0.50	--
04/05/2004		NP		39.19	11.90	26.00	15.78	23.41	140	<0.50	<0.50	<0.50	0.60	53	1.0	6.6
07/13/2004		NP		39.19	11.90	26.00	17.20	21.99	120	<0.50	<0.50	<0.50	<0.50	35	0.80	6.7
11/04/2004	NP		39.19	11.90	26.00	17.32	21.87	160	<0.50	<0.50	<0.50	<0.50	25	0.80	6.5	
01/20/2005	NP		39.19	11.90	26.00	15.07	24.12	160	<0.50	<0.50	<0.50	<0.50	27	0.60	6.1	



Table 1

## Groundwater Elevation and Analytical Data

ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-3	04/11/2005	NP		39.19	11.90	26.00	14.24	24.95	<50	<0.50	<0.50	<0.50	<0.50	21	0.60	6.1
	08/01/2005	NP		39.19	11.90	26.00	16.29	22.90	<50	<0.50	<0.50	<0.50	<0.50	23	1.04	7.2
MW-4	6/26/2000	--		38.1	10.00	24.00	14.59	23.51	--	--	--	--	--	--	--	NA
	7/20/2000	--		38.1	10.00	24.00	15.04	23.06	97	7.9	<0.5	<0.5	1.1	51	--	--
	9/19/2000	--		38.1	10.00	24.00	15.83	22.27	110	7	<0.5	<0.5	<1.0	60	--	--
	12/21/2000	--		38.1	10.00	24.00	15.59	22.51	120	5.6	<0.5	1.72	<0.5	46.3/48.6	--	--
	3/13/2001	--		38.1	10.00	24.00	13.73	24.37	76	0.796	<0.5	<0.5	<0.5	53.7/50	--	--
	9/18/2001	--		38.1	10.00	24.00	16.50	21.60	<50	<0.5	<0.5	<0.5	<0.5	25/26	--	--
	12/28/2001	--		38.1	10.00	24.00	14.03	24.07	<50	<0.5	<0.5	<0.5	<0.5	15/11	--	--
	3/14/2002	--		38.1	10.00	24.00	14.10	24.00	<50	<0.5	<0.5	<0.5	<0.5	31/28	--	--
	4/23/2002	--		38.1	10.00	24.00	13.57	24.53	<50	2.8	<0.5	<0.5	<0.5	42	--	--
	7/17/2002	NP		38.1	10.00	24.00	15.76	22.34	<50	<0.50	<0.50	<0.50	<0.50	16	7.1	7.1
	10/9/2002	NP		38.1	10.00	24.00	16.59	21.51	<50	2.2	<0.50	<0.50	<0.50	20/23	7.1	7.1
	1/13/2003	NP	d	38.1	10.00	24.00	13.43	24.67	52	<0.50	1.6	<0.50	<0.50	22	6.6	6.6
	04/07/03	NP		38.1	10.00	24.00	14.74	23.36	65	<0.50	<0.50	<0.50	<0.50	24	6.6	6.6
	7/9/2003	--		38.1	10.00	24.00	15.44	22.66	120	<0.50	<0.50	<0.50	<0.50	34	6.6	6.6
	02/05/2004	NP	m	37.99	10.00	24.00	14.39	23.60	120	<0.50	<0.50	<0.50	<0.50	22	0.50	6.6
	04/05/2004	NP		37.99	10.00	24.00	14.37	23.62	110	<0.50	<0.50	<0.50	<0.50	27	1.10	6.5
	07/13/2004	NP		37.99	10.00	24.00	15.96	22.03	77	<0.50	<0.50	<0.50	<0.50	27	0.60	6.6
11/04/2004	NP		37.99	10.00	24.00	16.02	21.97	<50	<0.50	<0.50	<0.50	<0.50	19	1.20	6.7	
01/20/2005	NP		37.99	10.00	24.00	13.72	24.27	65	<0.50	<0.50	<0.50	<0.50	18	0.60	6.1	
04/11/2005	NP		37.99	10.00	24.00	12.80	25.19	51	<0.50	<0.50	<0.50	<0.50	14	0.70	6.2	
08/01/2005	NP		37.99	10.00	24.00	14.88	23.11	<50	<0.50	<0.50	<0.50	<0.50	18	1.46	7.3	
MW-5	6/26/2000	--		37.21	9.50	23.50	14.27	22.94	--	--	--	--	--	--	--	--
	7/20/2000	--		37.21	9.50	23.50	14.69	22.52	55	<0.5	<0.5	<0.5	<1.0	14,000	--	--
	9/19/2000	--		37.21	9.50	23.50	15.36	21.85	54	<0.5	<0.5	<0.5	<1.0	13,000	--	--
	12/21/2000	--		37.21	9.50	23.50	15.15	22.06	72.9	2.51	<0.5	<0.5	0.961	19,200/21,200	--	--
	3/13/2001	--		37.21	9.50	23.50	13.50	23.71	<500	<5	<5	<5	<5	15,900/20,000	--	--
	9/18/2001	--		37.21	9.50	23.50	15.94	21.27	<10,000	<100	<100	<100	<1,000	22,000/20,000	--	--
	12/28/2001	--		37.21	9.50	23.50	13.45	23.76	<10,000	<100	<100	<100	<100	10,000/10,000	--	--

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-5	3/14/2002	--		37.21	9.50	23.50	13.82	23.39	<5,000	<50	<50	<50	<50	7,100/7,700	--	--
	4/23/2002	--		37.21	9.50	23.50	13.25	23.96	<5,000	<50	<50	<50	<50	8,900	--	--
	7/17/2002	NP	d	37.21	9.50	23.50	15.27	21.94	7,900	<50	<50	<50	<50	13,000	7.5	7.5
	10/9/2002	NP	e	37.21	9.50	23.50	16.02	21.19	2,400	<20	<20	<20	<20	7,300/7,500	6.7	6.7
	1/13/2003	NP	e, k, j (benzene and total xylenes)	37.21	9.50	23.50	13.20	24.01	6,400	<50	<50	<50	<50	8,900	6.8	6.8
	04/07/03	NP		37.21	9.50	23.50	14.42	22.79	<10,000	<100	<100	<100	<100	3,700	6.8	6.8
	7/9/2003	--		37.21	9.50	23.50	15.01	22.20	11,000	<50	<50	<50	<50	6,500	6.9	6.9
	02/05/2004	NP	m	37.12	9.00	23.50	14.10	23.02	8,100	<50	<50	<50	<50	7,900	1.50	--
	04/05/2004	NP		37.12	9.00	23.50	14.14	22.98	4,000	<25	<25	<25	<25	2,000	1.0	6.6
	07/13/2004	NP		37.12	9.00	23.50	15.37	21.75	<5,000	<50	<50	<50	<50	4,000	0.80	6.7
	11/04/2004	NP		37.12	9.00	23.50	15.53	21.59	7,400	<50	<50	<50	<50	6,300	3.50	6.7
	01/20/2005	NP	n	37.12	9.00	23.50	13.51	23.61	6,500	<50	<50	<50	<50	6,900	0.70	6.5
	04/11/2005	NP		37.12	9.00	23.50	12.75	24.37	<5,000	<50	<50	<50	<50	2,600	0.50	7.0
	08/01/2005	NP		37.12	9.00	23.50	14.59	22.53	110	<1.0	<1.0	<1.0	<1.0	130	1.36	7.5
	MW-6	6/26/2000	--		37.11	10.00	25.00	13.46	23.65	--	--	--	--	--	--	--
7/20/2000		--		37.11	10.00	25.00	13.94	23.17	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--
9/19/2000		--		37.11	10.00	25.00	14.41	22.70	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--
12/21/2000		--		37.11	10.00	25.00	14.53	22.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/13/2001		--		37.11	10.00	25.00	12.67	24.44	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
9/18/2001		--		37.11	10.00	25.00	15.42	21.69	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0	--	--
12/28/2001		--		37.11	10.00	25.00	12.96	24.15	<50	<0.5	<0.5	<0.5	<0.5	12/<0.5	--	--
3/14/2002		--		37.11	10.00	25.00	12.98	24.13	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
4/23/2002		--		37.11	10.00	25.00	12.44	24.67	<50	<0.5	<0.5	<0.5	<0.5	3.1	--	--
7/17/2002		NP		37.11	10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.3	7.3
10/9/2002		NP		37.11	10.00	25.00	15.51	21.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.1	7.1
1/13/2003		NP		37.11	10.00	25.00	12.27	24.84	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.8	6.8
04/07/03		NP		37.11	10.00	25.00	13.61	23.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.6	6.6
7/9/2003		--		37.11	10.00	25.00	14.34	22.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	7	7.0
02/05/2004		--	m	37.11	10.00	25.00	13.38	23.73	--	--	--	--	--	--	--	--
04/05/2004		--		37.11	10.00	25.00	13.31	23.80	--	--	--	--	--	--	--	--
07/13/2004		NP		37.11	10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.70	6.8
11/04/2004	--		37.11	10.00	25.00	14.95	22.16	--	--	--	--	--	--	--	--	

**Table 1**

**Groundwater Elevation and Analytical Data**

ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-6	01/20/2005	--		37.11	10.00	25.00	12.57	24.54	--	--	--	--	--	--	--	--
	04/11/2005	--		37.11	10.00	25.00	12.05	25.06	--	--	--	--	--	--	--	--
	08/01/2005	NP		37.11	10.00	25.00	13.79	23.32	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	7.6
MW-7	6/26/2000	--		38.68	12.00	27.00	14.34	24.34	--	--	--	--	--	--	--	--
	7/20/2000	--		38.68	12.00	27.00	15.26	23.42	14,000	5.4	<0.5	2.8	5.9	71,000	--	--
	9/19/2000	--		38.68	12.00	27.00	15.70	22.98	8,400	420	38	470	220	5,600	--	--
	12/21/2000	--		38.68	12.00	27.00	16.02	22.66	--	--	--	--	--	--	--	--
	3/13/2001	--		38.68	12.00	27.00	14.18	24.50	<2,000	154	63	46.3	127	175,000/160,000	--	--
	9/18/2001	--		38.68	12.00	27.00	17.02	21.66	<100,000	1,900	<1,000	<1,000	2,800	190,000/370,000	--	--
	12/28/2001	--		38.68	12.00	27.00	14.81	23.87	<20,000	<200	<200	<200	<200	84,000/72,000	--	--
	3/14/2002	--		38.68	12.00	27.00	14.60	24.08	<50,000	<500	<500	<500	<500	85,000/85,000	--	--
	4/23/2002	--		38.68	12.00	27.00	13.94	24.74	<20,000	530	200	220	800	67,000	--	--
	7/17/2002	NP	d	38.68	12.00	27.00	16.27	22.41	26,000	720	<250	<250	860	120,000	6.9	6.9
	10/9/2002	NP	d	38.68	12.00	27.00	17.16	21.52	110,000	1,500	4,400	820	5,400	97,000/120,000	6.8	6.8
	1/13/2003	NP	f (TPH-g, BTEX, MTBE)	38.68	12.00	27.00	13.82	24.86	<50,000	<500	<500	<500	2,200	33,000	6.6	6.6
	04/07/03	NP		38.68	12.00	27.00	14.52	24.16	<2,500	30	<25	<25	<25	710	7.0	7.0
	7/9/2003	--		38.68	12.00	27.00	15.97	22.71	66,000	<500	<500	<500	<500	36,000	6.7	6.7
	02/05/2004	NP	m	38.54	12.00	27.00	14.75	23.79	55,000	300	<250	<250	<250	34,000	1.0	6.7
04/05/2004	NP		38.54	12.00	27.00	14.63	23.91	62,000	520	<250	<250	380	37,000	1.0	6.7	
07/13/2004	NP		38.54	12.00	27.00	16.31	22.23	<100,000	<1,000	<1,000	<1,000	<1,000	56,000	0.70	6.7	
11/04/2004	--		38.54	12.00	27.00	16.46	22.08	70,000	<500	<500	<500	<500	71,000	2.0	6.6	
01/20/2005	NP	n	38.54	12.00	27.00	14.05	24.49	34,000	<250	<250	<250	<250	36,000	0.60	6.3	
04/11/2005	NP		38.54	12.00	27.00	12.55	25.99	<2,500	46	<25	<25	<25	1,200	0.70	6.8	
08/01/2005	NP		38.54	12.00	27.00	15.11	23.43	<25,000	<250	<250	<250	<250	4,800	1.78	7.3	
MW-8	02/05/2004	P	m	38.91	18.00	38.00	15.61	23.30	3,600	<25	<25	<25	<25	1,900	6.90	6.8
	04/05/2004	P		38.91	18.00	38.00	15.64	23.27	1,900	<10	<10	<10	<10	1,200	3.20	6.7
	07/13/2004	P		38.91	18.00	38.00	17.22	21.69	<1,000	<10	<10	<10	<10	760	1.60	6.7
	11/04/2004	P		38.91	18.00	38.00	17.19	21.72	960	<5.0	<5.0	<5.0	<5.0	820	1.80	6.7

**Table 1**

**Groundwater Elevation and Analytical Data**

ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-8	01/20/2005	P		38.91	18.00	38.00	15.25	23.66	<2,500	<25	<25	<25	<25	1,400	1.50	6.4
	04/11/2005	P		38.91	18.00	38.00	14.17	24.74	700	<5.0	<5.0	<5.0	<5.0	610	1.10	7.1
	08/01/2005	P		38.91	18.00	38.00	16.10	22.81	<1,000	<10	<10	<10	<10	900	2.58	7.7

**Table 1**

**Groundwater Elevation and Analytical Data**

ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

**ABBREVIATIONS:**

-- = Not analyzed/applicable/measured/available  
< = Not detected at or above laboratory reporting limit  
DO = Dissolved oxygen  
DTW = Depth to water in ft bgs  
ft bgs = feet below ground surface  
ft MSL = feet above mean sea level  
GRO = Gasoline Range Organics, range C4-C12  
GWE = Groundwater elevation in ft MSL  
mg/L = Milligrams per liter  
MTBE = Methyl tert-Butyl ether  
NP = Well not purged prior to sampling  
P = Well purged prior to sampling  
TOC = Top of casing in ft MSL  
TPH-g = Total petroleum hydrocarbons as gasoline  
ug/L = Micrograms per liter

**FOOTNOTES:**

a = Product sheen noted  
b = Well was sampled after batch extraction event.  
c = Chromatogram Pattern: Gasoline C6-C10 for GRO/TPH-g.  
d = Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel for GRO/TPH-g.  
e = Discrete peak @C6-C7 for GRO/TPH-g.  
f = This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.  
g = Well not sampled due to the detection of free product.  
h = Groundwater elevation adjusted for free product: (thickness of free product x 0.8) + measured groundwater elevation  
j = The closing calibration was outside acceptance limits by 1%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggests that calibration linearity is not a factor.  
k = The closing calibration was outside acceptance limits by 6%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggests that calibration linearity is not a factor.  
l = This analyte was not confirmed using a secondary column in accordance to client contract.  
m = TOC elevations re-surveyed to NAVD '88 on February 23, 2004.  
n = Hydrocarbon result partly due to indiv. peak(s) in quant. range.  
o = Light to moderate sheen

**NOTES:**

Beginning with the second quarter 2003 sampling event (04/07/03), TPH-g, BTEX, and MTBE analyzed by EPA method 8260B. Prior to 04/07/03, TPH-g was analyzed by EPA method 8015 modified and MTBE was analyzed by EPA methods 8020/ 8260B.

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

Values for dissolved oxygen (DO) and pH were obtained through field measurements.

Source : The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

**Table 2**

**Fuel Additives Analytical Data**  
 ARCO Service Station #2111  
 1156 Davis St, San Leandro, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Footnotes/ Comments
MW-1	4/7/2003	<100	<20	1,100	<0.50	<0.50	<0.50	--	--	
	7/9/2003	<5,000	<1,000	690	<25	<25	<25	--	--	
	02/05/2004	<5,000	<1,000	1,100	<25	<25	32	<25	<25	
	04/05/2004	<5,000	<1,000	1,700	<25	<25	38	<25	<25	a
	07/13/2004	<2,000	780	730	<10	<10	19	<10	<10	a
	11/04/2004	<1,000	<200	380	<5.0	<5.0	12	<5.0	<5.0	
	01/20/2005	<1,000	<200	570	<5.0	<5.0	17	<5.0	<5.0	a
	04/11/2005	<5,000	<1,000	1,100	<25	<25	34	<25	<25	
	08/01/2005	<2,000	<400	1,400	<10	<10	40	<10	<10	
MW-2	04/05/2004	<1,000	<200	750	<5.0	<5.0	<5.0	<5.0	<5.0	
	07/13/2004	<10,000	12,000	5,800	<50	<50	<50	<50	<50	a
	01/20/2005	<10,000	<2,000	7,000	<50	<50	<50	<50	<50	a
	04/11/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	
	08/01/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	
MW-3	4/7/2003	<100	<20	75	<0.50	<0.50	6.5	--	--	
	7/9/2003	<100	<20	52	<0.50	<0.50	4.2	--	--	
	02/05/2004	<100	<20	37	<0.50	<0.50	3.1	<0.50	<0.50	
	04/05/2004	<100	<20	53	<0.50	<0.50	3.7	<0.50	<0.50	a
	07/13/2004	<100	44	35	<0.50	<0.50	3.2	<0.50	<0.50	
	11/04/2004	<100	<20	25	<0.50	<0.50	2.2	<0.50	<0.50	
	01/20/2005	<100	<20	27	<0.50	<0.50	2.6	<0.50	<0.50	
	04/11/2005	<100	<20	21	<0.50	<0.50	2.0	<0.50	<0.50	
	08/01/2005	<100	<20	23	<0.50	<0.50	1.9	<0.50	<0.50	
MW-4	4/7/2003	<100	<20	24	<0.50	<0.50	7.3	--	--	
	7/9/2003	<100	<20	34	<0.50	<0.50	9.8	--	--	
	02/05/2004	<100	<20	22	<0.50	<0.50	6.2	<0.50	<0.50	
	04/05/2004	<100	<20	27	<0.50	<0.50	7.2	<0.50	<0.50	a
	07/13/2004	<100	26	27	<0.50	<0.50	7.4	<0.50	<0.50	a
	11/04/2004	<100	<20	19	<0.50	<0.50	5.1	<0.50	<0.50	
	01/20/2005	<100	<20	18	<0.50	<0.50	5.2	<0.50	<0.50	
	04/11/2005	<100	<20	14	<0.50	<0.50	4.0	<0.50	<0.50	
	08/01/2005	<100	<20	18	<0.50	<0.50	3.9	<0.50	<0.50	
MW-5	4/7/2003	<20,000	<4,000	3,700	<100	<100	<100	--	--	

Table 2

Fuel Additives Analytical Data  
 ARCO Service Station #2111  
 1156 Davis St, San Leandro, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Footnotes/ Comments
MW-5	7/9/2003	<10,000	<2,000	6,500	<50	<50	<50	--	--	
	02/05/2004	<10,000	<2,000	7,900	<50	<50	<50	<50	<50	a
	04/05/2004	<5,000	<1,000	2,000	<25	<25	<25	<25	<25	a
	07/13/2004	<10,000	3,200	4,000	<50	<50	<50	<50	<50	a
	11/04/2004	<10,000	<2,000	6,300	<50	<50	<50	<50	<50	
	01/20/2005	<10,000	<2,000	6,900	<50	<50	<50	<50	<50	a
	04/11/2005	<10,000	3,600	2,600	<50	<50	<50	<50	<50	
	08/01/2005	<200	1,600	130	<1.0	<1.0	<1.0	<1.0	<1.0	
MW-6	4/7/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
	7/9/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
	07/13/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
	08/01/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-7	4/7/2003	<5,000	<1,000	710	<25	<25	<25	--	--	
	7/9/2003	<100,000	<20,000	36,000	<500	<500	<500	--	--	
	02/05/2004	<50,000	<10,000	34,000	<250	<250	<250	<250	<250	
	04/05/2004	<50,000	<10,000	37,000	<250	<250	<250	<250	<250	
	07/13/2004	<200,000	<40,000	56,000	<1,000	<1,000	1,300	<1,000	<1,000	
	11/04/2004	<100,000	<20,000	71,000	<500	<500	<500	<500	<500	
	01/20/2005	<50,000	<10,000	36,000	<250	<250	<250	<250	<250	a
	04/11/2005	<5,000	<1,000	1,200	<25	<25	<25	<25	<25	
08/01/2005	<50,000	<10,000	4,800	<250	<250	<250	<250	<250		
MW-8	02/05/2004	<5,000	<1,000	1,900	<25	<25	<25	<25	<25	
	04/05/2004	<2,000	<400	1,200	<10	<10	12	<10	<10	a
	07/13/2004	<2,000	770	760	<10	<10	<10	<10	<10	a
	11/04/2004	<1,000	<200	820	<5.0	<5.0	9.6	<5.0	<5.0	
	01/20/2005	<5,000	<1,000	1,400	<25	<25	<25	<25	<25	a
	04/11/2005	<1,000	<200	610	<5.0	<5.0	8.1	<5.0	<5.0	
	08/01/2005	<2,000	<400	900	<10	<10	<10	<10	<10	

## Table 2

### Fuel Additives Analytical Data

ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

#### ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available  
< = Not detected at or above the laboratory reporting limit.  
1,2-DCA = 1,2-Dichloroethane  
DIPE = Di-isopropyl ether  
EDB = 1,2-Dibromoethane  
ETBE = Ethyl tert-Butyl ether  
MTBE = Methyl tert-Butyl ether  
TAME = tert-Amyl methyl ether  
TBA = tert-Butyl alcohol  
ug/L = Micrograms per Liter

#### FOOTNOTES:

a = The continuing calibration verification for ethanol was outside of client contractual acceptance limits. However, it was within method acceptance limits. The data should still be considered useful for its intended purpose.

#### NOTES:

All volatile organic compounds (Ethanol, TBA, MTBE, DIPE, ETBE, and TAME) analyzed using EPA Method 8260B.

Source : The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.



**Table 3**

**Groundwater Gradient Data**  
ARCO Service Station #2111  
1156 Davis St, San Leandro, CA

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
07/20/2000	West-Northwest	0.006
09/19/2000	West-Northwest	0.004
12/21/2000	West-Northwest	0.004
03/13/2001	West-Northwest	0.005
05/30/2001	West-Northwest	0.004
09/18/2001	West-Northwest	0.003
12/28/2001	West-Northwest	0.003
03/14/2002	West	0.004
04/23/2002	West	0.006
07/17/2002	West	0.003
10/09/2002	West	0.002
01/13/2003	Southwest	0.0043
04/07/2003	West-Northwest	0.009 to 0.011
07/09/2003	West-Northwest	0.004
10/01/2003	West	0.002
02/05/2004	West	0.004
04/05/2004	West-Southwest	0.004
07/13/2004	West-Southwest	0.003
11/04/2004	West	0.003
01/20/2005	West	0.009
04/11/2005	North to West	0.009 to 0.01
<b>08/01/2005</b>	<b>West to Northwest</b>	<b>0.006 to 0.004</b>

Note: The data within this table collected prior to July 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

**Table 4**  
**Approximate Cumulative Floating Product Recovered**  
**(1999 - present)**

ARCO Service Station #2111  
1156 Davis Street, San Leandro California

<b>Well Designation</b>	<b>Product Recovery Field Date</b>	<b>Floating Product Thickness (feet)</b>	<b>Floating Product Recovered (gallons)</b>
MW-2	06/28/99	0.45	0.30
MW-2	06/30/99	0.015	0.01
MW-2	07/07/99	0.06	0.04
MW-2	07/23/99	0.008	0.01
MW-2	08/25/99	0.02	0.01
MW-2	09/21/99	0.01	0.01
MW-2	11/10/99	ND	0.00
MW-2	02/09/00	ND	0.00
MW-2	04/23/02	ND	0.00
MW-2	07/17/02	Sheen	0.00
MW-2	10/9/2002 (1)	NA	0.00
MW-2	01/13/03	0.26	0.13
MW-2	02/14/03	ND	0.00
MW-2	03/24/03	ND	0.00
MW-2	04/07/03	0.05	0.00
MW-2	05/23/03	ND	0.00
MW-2	06/24/03	0.03	0.01
MW-2	07/09/03	0.07	0.03
MW-2	07/31/03	0.05	0.03
MW-2	09/04/03	0.02	0.01
MW-2	10/01/03	0.07	0.02
MW-2	11/12/03	0.59	0.36
MW-2	12/11/03	0.05	0.07
MW-2	02/05/04	0.13	0.02
MW-2	02/16/04	0.02	0.01
MW-2	03/11/04	ND	0.00
MW-2	03/30/04	ND	0.00
MW-2	04/05/04	ND	0.00
MW-2	07/13/04	ND	0.00
MW-2	08/31/04	ND	0.00
MW-2	09/07/04	ND	0.00
MW-2	11/04/04	0.22	0.14
MW-2	11/29/04	0.02	0.05
MW-2	12/15/04	0.24	0.16
MW-2	01/20/05	ND	0.00
MW-2	02/04/05	Sheen	0.00
MW-2	03/23/05	Sheen	0.00
MW-2	04/11/05	ND	0.00
MW-2	05/12/05	ND	0.00
MW-2	06/20/05	ND	0.00
MW-2	08/01/05	ND	0.00
MW-2	08/24/05	ND	0.00
MW-2	09/16/05	ND	0.00
<b>Approximate Cumulative Floating Product:</b>			<b>1.44</b>

**FOOTNOTES:**

1) Free product encountered, but unable to gauge.

**ATTACHMENT A**  
**FIELD PROCEDURES AND FIELD DATA SHEETS**

## **FIELD PROCEDURES**

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### **Sampling Procedures**

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe.

Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

WELL GAUGING DATA

Project # 050916-WC-3 Date 9/16/05 Client URSA Arco 2111

Site 1156 Davis St, San Leandro

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-2	4					1536	—	TOC

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050916-wc-3</u>	Station # <u>211</u>
Sampler: <u>wc</u>	Date: <u>9/16/05</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>—</u>	Depth to Water: <u>15.56</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Other: _____
--	--

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

_____	X	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
			<u>no spH detected</u>		

Did well dewater? <u>Yes</u>	No	Gallons actually evacuated: _____
Sampling Time: _____	Sampling Date: _____	
Sample I.D.: _____	Laboratory: Pace Sequoia Other _____	
Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol	Other: _____	
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

# WELL GAUGING DATA

Project # 050824.554 Date 8/24/05 Client MCO 2111

Site 1150 DAVIS ST. San Leandro

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-2	4					15.23	—	TOC

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050824-554</u>	Station # <u>2111</u>
Sampler: <u>600di</u>	Date: <u>8/24/05</u>
Well I.D.:	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: _____	Depth to Water: <u>15.23</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> <u>Grade</u>	D.O. Meter (if req'd): <u>YSI</u> <u>HACH</u>

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <u>Bailer</u> <del>Disposable Bailer</del> <del>Positive Air Displacement</del> <del>Electric Submersible</del> <del>Extraction Pump</del> Other: _____	Sampling Method: <u>Bailer</u> <del>Disposable Bailer</del> <del>Extraction Port</del> Other: _____
--	--

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

_____	X	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
					<u>NO SPH detected.</u>

Did well dewater? <u>Yes</u> <u>No</u>	Gallons actually evacuated: _____	
Sampling Time: _____	Sampling Date: _____	
Sample I.D.: _____	Laboratory: <u>Pace</u> <u>Sequoia</u> <u>Other</u> _____	
Analyzed for: <u>GRO</u> <u>BTEX</u> <u>MTBE</u> <u>DRO</u> <u>Oxy's</u> <u>1,2-DCA</u> <u>EDB</u> <u>Ethanol</u>	Other: _____	
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV



## WELL GAUGING DATA

Project # 050801-PM1 Date 8-1-05 Client Arcis 2111

Site 1156 Davis St. San Leandro

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-1	4					16.77	26.15	
MW-2	4					14.89	-	
MW-3	4					16.29	26.60	
MW-4	4					14.88	21.58	
MW-5	2					14.59	24.00	
MW-6	2					13.79	24.95	
MW-7	4					15.11	27.15	
MW-8	2					10.10	39.80	

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050801-PM</u>	Station # <u>Arco 2111</u>
Sampler: <u>PM</u>	Date: <u>8-1-05</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>26.15</u>	Depth to Water: <u>10.77</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer  
~~Disposable Bailer~~  
~~Positive Air Displacement~~  
~~Electric Submersible Extraction Pump~~  
 Other: \_\_\_\_\_

Sampling Method: Bailer  
~~Disposable Bailer~~  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: 12.5 If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1 Case Volume (Gals.)	X	$\frac{\text{no purge}}{\text{Specified Volumes}}$	=	Gals.
		Calculated Volume		

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1025	76.4	7.3	7161		clear

Did well dewater? Yes  No  Gallons actually evacuated: \_\_\_\_\_

Sampling Time: 1025 Sampling Date: 8-1-05

Sample I.D.: MW-1 Laboratory: Pace Sequoia Other: \_\_\_\_\_

Analyzed for: ORO BTEX MTBE DRO Other: See Sluff

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.27	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050801-PM1	Station # ARCO 2111
Sampler: <del>PM</del> PM	Date: 8-1-05
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8
Total Well Depth: <del>14.89</del> -	Depth to Water: 14.89
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <del>Bailer</del> Disposable Bailer Positive Air Displacement Electric Submersible Extraction Pump Other: _____	Sampling Method: (Bailer) (Disposable Bailer) Extraction Port Other: _____
--	---

Top of Screen: 12'      If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1 Case Volume (Gals.)	x	no purge Specified Volumes	=	Gals. Calculated Volume
-----------------------	---	-------------------------------	---	----------------------------

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1005	74.2	6.9	661		clear / odor

Did well dewater? Yes      No	Gallons actually evacuated: _____
Sampling Time: 1005	Sampling Date: 8-1-05
Sample I.D.: MW-2	Laboratory: Pace (Sequoia) Other _____
Analyzed for: (GRO) BTEX MTBE (GRO) Other: see slope	
D.O. (if req'd):	Pre-purge: _____ mg/L      Post-purge: (0.64) mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV      Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050801-PM1</u>	Station # <u>Arco 2111</u>
Sampler: <u>pm</u>	Date: <u>8-1-05</u>
Well I.D.: <u>MW-3</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>26.60</u>	Depth to Water: <u>16.29</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <u>Bailer</u> <del>Disposable Bailer</del> <del>Positive Air Displacement</del> <del>Electric Submersible</del> <del>Extraction Pump</del> Other: _____	Sampling Method: <u>Bailer</u> <del>Disposable Bailer</del> <del>Extraction Port</del> Other: _____
--	--

Top of Screen: 11' 9"      If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1 Case Volume (Gals.)	X	$\frac{\text{no purge}}{\text{Specified Volumes}}$	=	_____ Gals. Calculated Volume
-----------------------	---	--	---	----------------------------------

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1035	78.1	7.2	649		clear

Did well dewater? Yes      No	Gallons actually evacuated: _____
Sampling Time: <u>1035</u>	Sampling Date: <u>8-1-05</u>
Sample I.D.: <u>MW-3</u>	Laboratory: Pace <u>(Sequoia)</u> Other _____
Analyzed for: <u>(GRO)</u> <u>(BTEX)</u> <u>(MTBE)</u> DRO	Other: <u>See Scope</u>
D.O. (if req'd):	Pre-purge: _____ mg/L      Post-purge: <u>(1.04)</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV      Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050801-PM1	Station # Arco 2111
Sampler: PM	Date: 8-1-05
Well I.D.: MW-4	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 21.58	Depth to Water: 14.88
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <del>Bailer</del> <del>Disposable Bailer</del> <del>Positive Air Displacement</del> <del>Electric Submersible</del> <del>Extraction Pump</del> Other: _____	Sampling Method: <u>Bailer</u> <del>Disposable Bailer</del> Extraction Port Other: _____
--	---

Top of Screen: 10'      If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

_____	X	$\frac{\text{no purge}}{\text{Specified Volumes}}$	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1105	82.8	7.3	763		clear

Did well dewater? Yes      No	Gallons actually evacuated: _____
Sampling Time: 1105	Sampling Date: 8-1-05
Sample I.D.: MW-4	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>GRO</u> <u>BTEX</u> <u>MTBE</u> DRO	Other: <u>see Sample</u>
D.O. (if req'd):	Pre-purge: _____ mg/L      Post-purge: <u>1.46</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV      Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050801-PM1	Station # Arco 2111
Sampler: PM	Date: 8-1-05
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.00	Depth to Water: 14.59
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other: _____
--	---

Top of Screen: 9'4"      If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1 Case Volume (Gals.)	X	no purge Specified Volumes	=	Gals. Calculated Volume
-----------------------	---	-------------------------------	---	----------------------------

Time	Temp (°F)	pH	Conductivity (mS or (μS))	Gals. Removed	Observations
1045	75.4	7.5	678		clear

Did well dewater? Yes      No	Gallons actually evacuated: _____
Sampling Time: 1045	Sampling Date: 8-1-05
Sample I.D.: MW-5	Laboratory: Pace (Sequoia) Other _____
Analyzed for: (GRO) BTEX MTBE DRO	Other: See Scope
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: (1.36) mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050801-PM</u>	Station # <u>Arco 2111</u>
Sampler: <u>PM</u>	Date: <u>8-1-05</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>24.95</u>	Depth to Water: <u>13.79</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer  
    Disposable Bailer      Disposable Bailer  
    Positive Air Displacement      Extraction Port  
    Electric Submersible      Other: \_\_\_\_\_  
    Extraction Pump  
 Other: \_\_\_\_\_

Top of Screen: 10'      If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

_____	X	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
<u>1115</u>	<u>79.5</u>	<u>7.6</u>	<u>718</u>		<u>clear</u>

Did well dewater?    Yes      No      Gallons actually evacuated: \_\_\_\_\_

Sampling Time: ~~\_\_\_\_\_~~ 1115      Sampling Date: 8-1-05

Sample I.D.: MW-6      Laboratory: Pace (Sequoia) Other \_\_\_\_\_

Analyzed for: (GRO BTEX MTBE) DRO      Other: See Scope

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	<u>1.15</u> mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050801-PM1	Station # Arco 2111
Sampler: PM	Date: 8-1-05
Well I.D.: MW-7	Well Diameter: 2 3 ④ 6 8
Total Well Depth: 27.15	Depth to Water: 15.11
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: 12' If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1 Case Volume (Gals.)	X	$\frac{\text{no purge}}{\text{Specified Volumes}}$	=	_____ Gals. Calculated Volume
-----------------------	---	--	---	----------------------------------

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1130	83.0	7.3	880		clear odor

Did well dewater? Yes  No  Gallons actually evacuated: \_\_\_\_\_

Sampling Time: 1130 Sampling Date: 8-1-05

Sample I.D.: MW-7 Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for: GRO BTEX MTBE DRO Other: See Scope

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.78 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050801-PM1	Station # Arcw 2111
Sampler: PM	Date: 8-1-05
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8
Total Well Depth: <del>39.80</del>	Depth to Water: <del>39.80</del> 16.10
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer  
Disposable Bailer      Disposable Bailer  
Positive Air Displacement      Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

3.8	x	3	=	11.4	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1212	70.9	8.0	690	3.8	brown
1215	71.9	8.0	702	7.6	"
1218	71.1	7.7	703	11.4	"

Did well dewater? Yes  No       Gallons actually evacuated: \_\_\_\_\_

Sampling Time: 1225      Sampling Date: 8-1-05

Sample I.D.: MW-8      Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for: GRO BTEX MTBE DRO      Other: See Scope

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
				2.58
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

**BP GEM OIL COMPANY TYPE A BILL OF LADING**

SOURCE RECORD BILL OF LADING FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is PLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This Source Record BILL OF LADING was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

ARCO 2111

Station #  
1150 Davis St. S.C.

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:  
12

added equip. any other  
rinse water 3 adjustments

TOTAL GALS. RECOVERED 15 loaded onto  
BTS vehicle # 22

BTS event # time date  
050801-PM1 1225 8/1/05

signature Paul Mance

\*\*\*\*\*

REC'D AT time date

unloaded by  
signature

**ATTACHMENT B**

**LABORATORY PROCEDURES,  
CERTIFIED ANALYTICAL REPORTS,  
AND CHAIN-OF-CUSTODY RECORDS**

## **LABORATORY PROCEDURES**

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### **Laboratory Procedures**

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by RM have been reviewed and verified by that laboratory.



17 August, 2005

Scott Robinson  
URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland, CA 94612

RE: ARCO #2111, San Leandro, CA  
Work Order: MOH0259

Enclosed are the results of analyses for samples received by the laboratory on 08/02/05 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jamshid Kekobad  
Project Manager

CA ELAP Certificate #1210

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project:ARCO #2111, San Leandro, CA  
Project Number:G0C28-0004  
Project Manager:Scott Robinson

MOH0259  
Reported:  
08/17/05 15:00

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MOH0259-01	Water	08/01/05 10:25	08/02/05 16:00
MW-2	MOH0259-02	Water	08/01/05 10:05	08/02/05 16:00
MW-3	MOH0259-03	Water	08/01/05 10:35	08/02/05 16:00
MW-4	MOH0259-04	Water	08/01/05 11:05	08/02/05 16:00
MW-5	MOH0259-05	Water	08/01/05 10:45	08/02/05 16:00
MW-6	MOH0259-06	Water	08/01/05 11:15	08/02/05 16:00
MW-7	MOH0259-07	Water	08/01/05 11:30	08/02/05 16:00
MW-8	MOH0259-08	Water	08/01/05 12:25	08/02/05 16:00
TB211108012005	MOH0259-09	Water	08/01/05 00:00	08/02/05 16:00

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MOH0259  
 Reported:  
 08/17/05 15:00

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MOH0259-01) Water    Sampled: 08/01/05 10:25    Received: 08/02/05 16:00</b>									
tert-Amyl methyl ether	40	10	ug/l	20	5H12011	08/12/05	08/13/05	EPA 8260B	
<b>Benzene</b>	<b>33</b>	10	"	"	"	"	"	"	
tert-Butyl alcohol	ND	400	"	"	"	"	"	"	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
Ethanol	ND	2000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>110</b>	10	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>1400</b>	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
<b>Gasoline Range Organics (C4-C12)</b>	<b>2200</b>	1000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98 %		60-135	"	"	"	"	
<b>MW-2 (MOH0259-02) Water    Sampled: 08/01/05 10:05    Received: 08/02/05 16:00</b>									
tert-Amyl methyl ether	ND	50	ug/l	100	5H12011	08/12/05	08/13/05	EPA 8260B	
<b>Benzene</b>	<b>170</b>	50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	2000	"	"	"	"	"	"	
Di-isopropyl ether	ND	50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	50	"	"	"	"	"	"	
Ethanol	ND	10000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	50	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>1100</b>	50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>2700</b>	50	"	"	"	"	"	"	
Toluene	ND	50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>2700</b>	50	"	"	"	"	"	"	
<b>Gasoline Range Organics (C4-C12)</b>	<b>24000</b>	5000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98 %		60-135	"	"	"	"	





URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MOH0259  
 Reported:  
 08/17/05 15:00

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-5 (MOH0259-05) Water</b> Sampled: 08/01/05 10:45 Received: 08/02/05 16:00									
tert-Amyl methyl ether	ND	1.0	ug/l	2	5H15043	08/15/05	08/15/05	EPA 8260B	
Benzene	ND	1.0	"	"	"	"	"	"	
tert-Butyl alcohol	1600	40	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	200	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	130	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	110	100	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94 %		60-135	"	"	"	"	
<b>MW-6 (MOH0259-06) Water</b> Sampled: 08/01/05 11:15 Received: 08/02/05 16:00									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5H12011	08/12/05	08/13/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		60-135	"	"	"	"	

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MOH0259  
 Reported:  
 08/17/05 15:00

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7 (MOH0259-07) Water    Sampled: 08/01/05 11:30    Received: 08/02/05 16:00</b>									
tert-Amyl methyl ether	ND	250	ug/l	500	5H12011	08/12/05	08/13/05	EPA 8260B	
Benzene	ND	250	"	"	"	"	"	"	
tert-Butyl alcohol	ND	10000	"	"	"	"	"	"	
Di-isopropyl ether	ND	250	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	250	"	"	"	"	"	"	
1,2-Dichloroethane	ND	250	"	"	"	"	"	"	
Ethanol	ND	50000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	250	"	"	"	"	"	"	
Ethylbenzene	ND	250	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>4800</b>	250	"	"	"	"	"	"	
Toluene	ND	250	"	"	"	"	"	"	
Xylenes (total)	ND	250	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	25000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>106 %</i>	<i>60-135</i>		"	"	"	"	
<b>MW-8 (MOH0259-08) Water    Sampled: 08/01/05 12:25    Received: 08/02/05 16:00</b>									
tert-Amyl methyl ether	ND	10	ug/l	20	5H12011	08/12/05	08/13/05	EPA 8260B	
Benzene	ND	10	"	"	"	"	"	"	
tert-Butyl alcohol	ND	400	"	"	"	"	"	"	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
Ethanol	ND	2000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>900</b>	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	1000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>106 %</i>	<i>60-135</i>		"	"	"	"	

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MOH0259  
 Reported:  
 08/17/05 15:00

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5H12011 - EPA 5030B P/T / EPA 8260B**
**Blank (5H12011-BLK1)**

Prepared &amp; Analyzed: 08/12/05

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.34		"	2.50		94	60-135			

**Blank (5H12011-BLK2)**

Prepared &amp; Analyzed: 08/12/05

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.52		"	2.50		101	60-135			

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MOH0259  
 Reported:  
 08/17/05 15:00

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5H12011 - EPA 5030B P/T / EPA 8260B**
**Laboratory Control Sample (5H12011-BS1)**

Prepared &amp; Analyzed: 08/12/05

tert-Amyl methyl ether	16.1	0.50	ug/l	15.0		107	80-115			
Benzene	5.16	0.50	"	5.16		100	65-115			
tert-Butyl alcohol	144	20	"	143		101	75-150			
Di-isopropyl ether	16.1	0.50	"	15.1		107	75-125			
1,2-Dibromoethane (EDB)	15.5	0.50	"	14.8		105	85-120			
1,2-Dichloroethane	13.7	0.50	"	14.7		93	85-130			
Ethanol	146	100	"	141		104	70-135			
Ethyl tert-butyl ether	15.7	0.50	"	15.0		105	75-130			
Ethylbenzene	7.54	0.50	"	7.54		100	75-135			
Methyl tert-butyl ether	7.14	0.50	"	7.02		102	65-125			
Toluene	34.7	0.50	"	37.2		93	85-120			
Xylenes (total)	42.3	0.50	"	41.4		102	85-125			
Gasoline Range Organics (C4-C12)	436	50	"	440		99	70-124			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.25		"	2.50		90	60-135			

**Matrix Spike (5H12011-MS1)**

Source: MOH0259-01

Prepared &amp; Analyzed: 08/12/05

tert-Amyl methyl ether	372	10	ug/l	301	40	110	80-115			
Benzene	129	10	"	103	33	93	65-115			
tert-Butyl alcohol	2730	400	"	2860	390	82	75-120			
Di-isopropyl ether	255	10	"	303	ND	84	75-125			
1,2-Dibromoethane (EDB)	335	10	"	297	ND	113	85-120			
1,2-Dichloroethane	314	10	"	294	1.2	106	85-130			
Ethanol	2650	2000	"	2830	920	61	70-135			LN
Ethyl tert-butyl ether	342	10	"	300	ND	114	75-130			
Ethylbenzene	237	10	"	151	110	84	75-135			
Methyl tert-butyl ether	1160	10	"	140	1400	NR	65-125			BB, LN
Toluene	734	10	"	744	ND	99	85-120			
Xylenes (total)	905	10	"	828	5.2	109	85-125			
Gasoline Range Organics (C4-C12)	11300	1000	"	8800	2200	103	70-124			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.47		"	2.50		99	60-135			

Sequoia Analytical - Morgan Hill

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.*

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MOH0259  
 Reported:  
 08/17/05 15:00

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5H12011 - EPA 5030B P/T / EPA 8260B**

<b>Matrix Spike Dup (5H12011-MSD1)</b>	<b>Source: MOH0259-01</b>			<b>Prepared &amp; Analyzed: 08/12/05</b>						
tert-Amyl methyl ether	378	10	ug/l	301	40	112	80-115	2	15	
Benzene	128	10	"	103	33	92	65-115	0.8	20	
tert-Butyl alcohol	3150	400	"	2860	390	97	75-120	14	25	
Di-isopropyl ether	338	10	"	303	ND	112	75-125	28	15	RB
1,2-Dibromoethane (EDB)	333	10	"	297	ND	112	85-120	0.6	15	
1,2-Dichloroethane	315	10	"	294	1.2	107	85-130	0.3	20	
Ethanol	3080	2000	"	2830	920	76	70-135	15	35	
Ethyl tert-butyl ether	342	10	"	300	ND	114	75-130	0	25	
Ethylbenzene	226	10	"	151	110	77	75-135	5	15	
Methyl tert-butyl ether	1220	10	"	140	1400	NR	65-125	5	20	BB, LN
Toluene	701	10	"	744	ND	94	85-120	5	20	
Xylenes (total)	859	10	"	828	5.2	103	85-125	5	20	
Gasoline Range Organics (C4-C12)	11100	1000	"	8800	2200	101	70-124	2	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>2.48</i>		<i>"</i>	<i>2.50</i>		<i>99</i>	<i>60-135</i>			

**Batch 5H15043 - EPA 5030B P/T / EPA 8260B**

<b>Blank (5H15043-BLK1)</b>	<b>Prepared &amp; Analyzed: 08/15/05</b>									
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.91</i>		<i>"</i>	<i>5.00</i>		<i>98</i>	<i>60-135</i>			

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #2111, San Leandro, CA  
 Project Number: G0C28-0004  
 Project Manager: Scott Robinson

 MOH0259  
 Reported:  
 08/17/05 15:00

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5H15043 - EPA 5030B P/T / EPA 8260B**
**Laboratory Control Sample (5H15043-BS1)**

Prepared: 08/15/05 Analyzed: 08/16/05

tert-Amyl methyl ether	17.4	0.50	ug/l	15.0		116	80-115			HL
Benzene	5.10	0.50	"	5.16		99	65-115			
tert-Butyl alcohol	179	20	"	143		125	75-150			
Di-isopropyl ether	14.9	0.50	"	15.1		99	75-125			
1,2-Dibromoethane (EDB)	17.6	0.50	"	14.8		119	85-120			
1,2-Dichloroethane	15.7	0.50	"	14.7		107	85-130			
Ethanol	171	100	"	141		121	70-135			
Ethyl tert-butyl ether	14.1	0.50	"	15.0		94	75-130			
Ethylbenzene	7.18	0.50	"	7.54		95	75-135			
Methyl tert-butyl ether	6.78	0.50	"	7.02		97	65-125			
Toluene	39.9	0.50	"	37.2		107	85-120			
Xylenes (total)	42.5	0.50	"	41.4		103	85-125			
Gasoline Range Organics (C4-C12)	495	50	"	440		112	70-124			

*Surrogate: 1,2-Dichloroethane-d4*

5.04

"

5.00

101

60-135

**Matrix Spike (5H15043-MS1)**

Source: MOH0256-01

Prepared: 08/15/05 Analyzed: 08/16/05

tert-Amyl methyl ether	171	5.0	ug/l	150	2.3	112	80-115			
Benzene	217	5.0	"	51.6	200	33	65-115			LN
tert-Butyl alcohol	1820	200	"	1430	ND	127	75-120			LM
Di-isopropyl ether	146	5.0	"	151	ND	97	75-125			
1,2-Dibromoethane (EDB)	171	5.0	"	148	ND	116	85-120			
1,2-Dichloroethane	143	5.0	"	147	ND	97	85-130			
Ethanol	1910	1000	"	1410	ND	135	70-135			
Ethyl tert-butyl ether	134	5.0	"	150	0.70	89	75-130			
Ethylbenzene	460	5.0	"	75.4	450	13	75-135			LN
Methyl tert-butyl ether	126	5.0	"	70.2	61	93	65-125			
Toluene	358	5.0	"	372	14	92	85-120			
Xylenes (total)	910	5.0	"	414	630	68	85-125			LN
Gasoline Range Organics (C4-C12)	13900	500	"	4400	8900	114	70-124			

*Surrogate: 1,2-Dichloroethane-d4*

5.20

"

5.00

104

60-135

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0004 Project Manager: Scott Robinson	MOH0259 Reported: 08/17/05 15:00
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5H15043 - EPA 5030B P/T / EPA 8260B**

Matrix Spike Dup (5H15043-MSD1)	Source: MOH0256-01	Prepared: 08/15/05	Analyzed: 08/16/05								
tert-Amyl methyl ether	171	5.0	ug/l	150	2.3	112	80-115	0	15		
Benzene	238	5.0	"	51.6	200	74	65-115	9	20		
tert-Butyl alcohol	588	200	"	1430	ND	41	75-120	102	25	LN, BA	
Di-isopropyl ether	148	5.0	"	151	ND	98	75-125	1	15		
1,2-Dibromoethane (EDB)	160	5.0	"	148	ND	108	85-120	7	15		
1,2-Dichloroethane	82.0	5.0	"	147	ND	56	85-130	54	20	LN, BA	
Ethanol	1780	1000	"	1410	ND	126	70-135	7	35		
Ethyl tert-butyl ether	127	5.0	"	150	0.70	84	75-130	5	25		
Ethylbenzene	500	5.0	"	75.4	450	66	75-135	8	15	LN	
Methyl tert-butyl ether	87.2	5.0	"	70.2	61	37	65-125	36	20	LN, BA	
Toluene	371	5.0	"	372	14	96	85-120	4	20		
Xylenes (total)	841	5.0	"	414	630	51	85-125	8	20	LN	
Gasoline Range Organics (C4-C12)	11700	500	"	4400	8900	64	70-124	17	20	LN	
Surrogate: 1,2-Dichloroethane-d4	4.50		"	5.00		90	60-135				

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612Project: ARCO #2111, San Leandro, CA  
Project Number: G0C28-0004  
Project Manager: Scott RobinsonMOH0259  
Reported:  
08/17/05 15:00**Notes and Definitions**

RB RPD exceeded method control limit; % recoveries within limits.

LN MS and/or MSD below acceptance limits. See Blank Spike(LCS).

LM MS and/or MSD above acceptance limits. See Blank Spike(LCS).

HL Analyte recovery above established limit

BB, LN Sample > 4x spike concentration.

BA Relative percent difference out of control

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference





# Chain of Custody Record

Project Name: Analytical for QMR sampling  
 BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > Central > 2111 > Historical/BL  
 State or Lead Regulatory Agency: California Regional Water Quality Control Board - San Francisco  
 Requested Due Date (mm/dd/yy): 10 Day TAT

On-site Time: 8:15 Temp: 75  
 Off-site Time: Temp:  
 Sky Conditions: cloudy  
 Meteorological Events:  
 Wind Speed: 0 Direction:

Lab Name: <u>Sequoia</u>	BP/AR Facility No.: <u>2111</u>	Consultant/Contractor: <u>URS</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>1156 Davis St, San Leandro, CA 94577</u>	Address: <u>1333 Broadway, Suite 800</u>
<u>Morgan Hill, CA 95037</u>	Site Lat/Long: <u>37.721928 / -122.168</u>	<u>Oakland, CA 94612</u>
Lab PM: <u>Lisa Race / Jamshid Kekobad</u>	California Global ID No.: <u>T0600101764</u>	Consultant/Contractor Project No.: <u>38487022</u>
Tele/Fax: <u>408.782.8156 / 408.782.6308</u>	Enfos Project No.: <u>GOC28-0004</u>	Consultant/Contractor PM: <u>Scott Robinson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or RCOP: <u>Provision</u>	Tele/Fax: <u>510.874.3280 / 510.874.3268</u>
Address: <u>P.O. Box 6549</u>	Phase/WBS: <u>04 - Mon/Remed by Natural Attenuation</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>Moraga, CA 94570</u>	Sub Phase/Task: <u>03 - Analytical</u>	E-mail EDD To: <u>Donna Cospers@URSCorp.com</u>
Tele/Fax: <u>925.299.8891 / 925.299.8872</u>	Cost Element: <u>05 - Subcontracted Costs</u>	Invoice to: <u>Atlantic Richfield Company</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRX / BTEX (8260)	MTBE, TAME, ETBE, DEPE, TBA (8260)	1,2-DCA & EDB (8260)	ETHANOL (8260)		
1	MW-1	1025	8/10/05	W			01	3						X	X	X	X	MOH0259 Sample Point Lat/Long and Comments	
2	MW-2	1005					02	3						X	X	X	X		
3	MW-3	1035					03	3						X	X	X	X		
4	MW-4	1105					04	3						X	X	X	X		
5	MW-5	1045					05	3						X	X	X	X		
6	MW-6	1115					06	3						X	X	X	X		
7	MW-7	1130					07	3						X	X	X	X		
8	MW-8	1225					08	3						X	X	X	X		
9	TS2110801205			W			09	2											in hold

Sampler's Name: <u>TAMC Monroe</u>	Relinquished By / Affiliation: <u>TAMC Monroe</u>	Date: <u>8/10/05</u>	Time: <u>1635</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>8/10/05</u>	Time: <u>1635</u>
Sampler's Company: <u>BlaiseTech</u>	<u>SAMPLE CUSTODIAN</u>	<u>8/10/05</u>	<u>1500</u>	<u>[Signature]</u>	<u>8/10/05</u>	<u>1520</u>
Shipment Date:		<u>8/10/05</u>	<u>1600</u>	<u>[Signature]</u>	<u>8/10/05</u>	<u>1600</u>
Shipment Method:						
Shipment Tracking No:						

Instructions:

In-Place Yes  No  Temp Blank Yes  No  Cooler Temperature on Receipt 5.7 °C Trip Blank Yes  No

White Copy - Laboratory / Yellow Copy - BP/Atlantic Richfield Co. / Pink Copy - Consultant/Contractor

BP.COC.Rev. 4 10/1/04

## SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

**CLIENT NAME:** URS  
**REC. BY (PRINT):** Phuc  
**WORKORDER:** MO46259

**DATE REC'D AT LAB:** 8/2/05  
**TIME REC'D AT LAB:** 16:00  
**DATE LOGGED IN:** 8-6-05

For Regulatory Purposes?  
**DRINKING WATER:** YES/NO NO  
**WASTE WATER:** YES/NO NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	PH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Absent Intact / Broken*	01		NW 2	UGA 3	Hel	-	L	8/1/05	10:25
2. Chain-of-Custody Present / Absent*	02		↓	↓	↓	↓	↓	↓	10:05
3. Traffic Reports or Packaging List:	03		3	↓	↓	↓	↓	↓	10:35
4. Airbill: Airbill / Sticker Present / Absent	04		4	↓	↓	↓	↓	↓	11:05
5. Airbill #:	05		5	↓	↓	↓	↓	↓	10:45
6. Sample Labels: Present / Absent	06		6	↓	↓	↓	↓	↓	11:15
7. Sample IDs: Used / Not Listed on Chain-of-Custody	07		7	↓	↓	↓	↓	↓	11:30
8. Sample Condition: Intact / Broken* / Leaking*	08		8	↓	↓	↓	↓	↓	12:25
9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes / No*	09		TR2110R012005	↓	↓	↓	↓	↓	
10. Sample received within hold time? Yes / No*									
11. Adequate sample volume received? Yes / No*									
12. Proper preservatives used? Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / No*									
14. Read Temp: Corrected Temp: Is corrected temp 4 ± 2°C? Yes / No** <small>(Acceptance range for samples requiring thermal pres.)</small>									

P.P. 8/12/05

\*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

**ATTACHMENT C**

**HISTORIC GROUNDWATER DATA**

**Table 1**  
**Historical Groundwater Elevation and Analytical Data**  
**Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHC	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	MTBE	TRPH	TPHD	Dissolved Oxygen	Purged/Not Purged
							LUFT Method µg/L	EPA 8021B* µg/L	EPA 8021B* µg/L	EPA 8021B* µg/L	EPA 8021B* µg/L	EPA 8021B* µg/L	EPA 8260 µg/L	EPA 418.1 µg/L	LUFT Method µg/L	mg/L	P/NP
MW-1	08-01-95	39.60	17.45	ND	22.15	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..		
MW-1	12-14-95	39.60	17.09	ND	22.51	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	03-21-96	39.60	14.72	ND	24.88	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	05-24-96	39.60	15.94	ND	23.66	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	08-09-96	39.60	17.89	ND	21.71	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	11-06-96	39.60	18.66	ND	20.94	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	03-24-97	39.60	16.13	ND	23.47	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	05-27-97	39.60	17.23	ND	22.37	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	08-07-97	39.60	18.68	ND	20.92	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	11-10-97	39.60	19.19	ND	20.41	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	02-16-98	39.60	12.61	ND	26.99	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	04-15-98	39.60	14.30	ND	25.30	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	07-24-98	39.60	16.40	ND	23.20	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	10-19-98	39.60	17.90	ND	21.70	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	Δ	..	..	..		
MW-1	01-28-99	39.60	16.85	ND	22.75	01-28-99	<20,000	580	<200	<200	320	14,000	..	..	..		
MW-1	06-25-99	39.60	17.35	ND	22.25	06-25-99	730	140	5	3	2	7,700	..	..	..	0.79	NP
MW-1	08-25-99	39.60	18.20	ND	21.40	08-25-99	390	66	8.5	<2.5	8.6	3,700	..	..	..	1.56	NP
MW-1	11-10-99	39.60	17.77	ND	21.83	11-10-99	360	70	13	2.2	13	980	..	..	..	0.30	NP
MW-1	02-09-00	39.60	16.25	ND	23.35	02-09-00	190	4.5	0.9	<0.5	12	3,500	..	..	..	0.53	NP
MW-2	08-01-95	37.99	15.67	ND	22.32	08-01-95	23,000	1,300	310	500	3,500	..	..	..	..		
MW-2	12-14-95	37.99	15.36	ND	22.63	12-14-95	7,300	900	25	180	1,000	<200	..	..	..		
MW-2	03-21-96	37.99	12.84	ND	25.15	03-21-96	9,600	850	30	280	1,400	250	..	..	..		
MW-2	05-24-96	37.99	14.03	ND	23.96	05-24-96	2,300	300	<5	73	310	<25	..	..	..		
MW-2	08-09-96	37.99	16.10	ND	21.89	08-09-96	2,800	290	6	75	320	50	..	..	..		

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**Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHC LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged P/NP
MW-2	11-06-96	37.99	16.98	ND	21.01	11-06-96	750	76	<1	15	51	110	--	--	--		
MW-2	03-24-97	37.99	14.22	ND	23.77	03-24-97	790	18	<1	2	6	280	--	--	--		
MW-2	05-27-97	37.99	15.42	ND	22.57	05-28-97	750	14	<1	<1	10	150	--	--	--		
MW-2	08-07-97	37.99	16.92	ND	21.07	08-07-97	360	31	<2.5	<2.5	15	260	--	--	--		
MW-2	11-10-97	37.99	17.52	ND	20.47	11-10-97	1,300	82	<5	14	49	550	--	--	--		
MW-2	02-16-98	37.99	12.04	ND	25.95	02-16-98	<2,500	<25	<25	<25	<25	4,200	--	--	--		
MW-2	04-15-98	37.99	12.34	ND	25.65	04-15-98	<10,000	<100	<100	<100	<100	7,300	--	--	--		
MW-2	07-24-98	37.99	14.45	ND	23.54	07-24-98	<2,500	<25	<25	<25	<25	1,500	--	--	--		
MW-2	10-19-98	37.99	16.08	ND	21.91	10-19-98	<1,000	18	<10	<10	<10	1,100	--	--	--		
MW-2	01-28-99	37.99	15.59	0.02	22.41 [1]	01-28-99	160,000	3,000	24,000	4,400	31,000	23,000	--	--	--		
MW-2	06-25-99	37.99	19.20	3.73[4]	21.51 [1]	06-25-99	120,000	6,900	21,000	2,600	19,000	18,000	17,000[3]	--	--	0.49	NP
MW-2	08-25-99	37.99	16.49	0.02	21.51 [1]	08-25-99	92,000	2,200	16,000	3,200	19,000	11,000	9,400[3]	--	--	0.84	NP
MW-2	11-10-99	37.99	16.08	ND	21.91	11-10-99	56,000	2,400	5,900	1,500	10,000	17,000	21,000[3]	--	--	0.41	NP
MW-2	02-09-00	37.99	14.85	ND	23.14	02-09-00	1,700	270	14	17	21	70,000	55,000[3]	--	--	0.97	NP
MW-3	08-01-95	39.32	17.00	ND	22.32	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	600	76[2]		
MW-3	12-14-95	39.32	16.70	ND	22.62	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<500	<50		
MW-3	03-21-96	39.32	14.17	ND	25.15	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<500	<50		
MW-3	05-24-96	39.32	15.30	ND	24.02	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<500	<50		
MW-3	08-09-96	39.32	17.58	ND	21.74	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<500	--		
MW-3	11-06-96	39.32	18.33	ND	20.99	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--		
MW-3	03-24-97	39.32	15.44	ND	23.88	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--		
MW-3	05-27-97	39.32	16.75	ND	22.57	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--		
MW-3	08-07-97	39.32	18.35	ND	20.97	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--		
MW-3	11-10-97	39.32	18.83	ND	20.49	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--		

**Table 1**  
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**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged P/NP
MW-3	02-16-98	39.32	11.99	ND	27.33	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-3	04-15-98	39.32	13.75	ND	25.57	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-3	07-24-98	39.32	15.90	ND	23.42	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-3	10-19-98	39.32	17.45	ND	21.87	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-3	01-28-99	39.32	16.40	ND	22.92	01-28-99	<100	14	4	<1	6	100	∴	∴	∴		
MW-3	06-25-99	39.32	17.92	ND	21.40	06-25-99	83	9.0	1.4	<0.5	2.5	220	∴	∴	∴	1.11	NP
MW-3	08-25-99	39.32	17.79	ND	21.53	08-25-99	240	41	12	3.7	9.9	160	∴	∴	∴	1.13	NP
MW-3	11-10-99	39.32	17.37	ND	21.95	11-10-99	620	100	9.7	4.1	21	150	∴	∴	∴	0.24	NP
MW-3	02-09-00	39.32	15.77	ND	23.55	02-09-00	<50	<0.5	0.7	<0.5	<1	180	∴	∴	∴	0.62	NP
MW-4	08-01-95	38.10	15.65	ND	22.45	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	12-14-95	38.10	15.35	ND	22.75	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	03-21-96	38.10	12.74	ND	25.36	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	05-24-96	38.10	14.03	ND	24.07	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	08-09-96	38.10	16.10	ND	22.00	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	11-06-96	38.10	17.00	ND	21.10	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	03-24-97	38.10	14.21	ND	23.89	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	05-27-97	38.10	15.38	ND	22.72	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	08-07-97	38.10	16.95	ND	21.15	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	11-10-97	38.10	17.53	ND	20.57	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	02-16-98	38.10	10.65	ND	27.45	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	04-15-98	38.10	12.20	ND	25.90	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	07-24-98	38.10	14.47	ND	23.63	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	10-19-98	38.10	16.20	ND	21.90	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	∆	∴	∴	∴		
MW-4	01-28-99	38.10	15.02	ND	23.08	01-28-99	340	52	5.5	<0.5	74	31	∴	∴	∴		

**Table 1**  
**Historical Groundwater Elevation and Analytical Data**  
**Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation	Depth to Water	Free Product Thickness	Groundwater Elevation	Water Sample Field Date	TPHC	Benzene EPA 8021B*	Toluene EPA 8021B*	Ethylbenzene EPA 8021B*	Total Xylenes EPA 8021B*	MTBE EPA 8021B*	MTBE EPA 8260	TRPH EPA 418.1	TPHD	Dissolved Oxygen	Purged/ Not Purged
		ft-MSL					feet								feet		
MW-4	06-25-99	38.10	15.57	ND	22.53	06-25-99	510	78	4.1	0.5	18	94	..	..	..	0.90	NP
MW-4	08-25-99	38.10	16.43	ND	21.67	08-25-99	660	130	21	6.4	39	110	..	..	..	1.01	NP
MW-4	11-10-99	38.10	16.02	ND	22.08	11-10-99	510	98	5.1	3.1	15	69	..	..	..	0.28	NP
MW-4	02-09-00	38.10	14.30	ND	23.80	02-09-00	<50	<0.5	0.9	<0.5	<1	55	..	..	..	0.67	NP
MW-5	03-21-96	37.21	12.60	ND	24.61	03-22-96	<50	<0.5	<0.5	<0.5	<0.5	82	..	..	..		
MW-5	05-24-96	37.21	13.71	ND	23.50	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	7	..	..	..		
MW-5	08-09-96	37.21	15.60	ND	21.61	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	8	..	..	..		
MW-5	11-06-96	37.21	16.36	ND	20.85	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	100	..	..	..		
MW-5	03-24-97	37.21	13.87	ND	23.34	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	460	..	..	..		
MW-5	05-27-97	37.21	14.71	ND	22.50	05-28-97	<100	<1	<1	<1	<1	120	..	..	..		
MW-5	08-07-97	37.21	16.90	ND	20.31	08-07-97	<250	<2.5	<2.5	<2.5	<2.5	250	..	..	..		
MW-5	11-10-97	37.21	16.88	ND	20.33	11-10-97	<1,000	<10	<10	<10	<10	770	..	..	..		
MW-5	02-16-98	37.21	10.56	ND	26.65	02-16-98	<200	<2	<2	<2	<2	230	..	..	..		
MW-5	04-15-98	37.21	12.20	ND	25.01	04-15-98	<500	<5	<5	<5	<5	900	..	..	..		
MW-5	07-24-98	37.21	14.20	ND	23.01	07-24-98	<500	<5	<5	<5	<5	570	..	..	..		
MW-5	10-19-98	37.21	15.74	ND	21.47	10-19-98	<250	<2.5	<2.5	<2.5	<2.5	300	..	..	..		
MW-5	01-28-99	37.21	14.60	ND	22.61	01-28-99	<500	8	<5	<5	<5	290	..	..	..		
MW-5	06-25-99	37.21	15.10	ND	22.11	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	1,300	..	..	..	0.76	NP
MW-5	08-25-99	37.21	15.91	ND	21.30	08-25-99	<50	<0.5	<0.5	<0.5	<0.5	6,700	..	..	..	0.98	NP
MW-5	11-10-99	37.21	15.52	ND	21.69	11-10-99	130	2.0	7.0	1.3	21	5,000	..	..	..	0.21	NP
MW-5	02-09-00	37.21	14.03	ND	23.18	02-09-00	92	<0.5	0.8	<0.5	1.0	7,900	..	..	..	0.51	NP
MW-6	03-21-96	37.11	11.55	ND	25.56	03-22-96	<50	<0.5	1.9	<0.5	<0.5	<5	..	..	..		
MW-6	05-24-96	37.11	12.80	ND	24.31	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	6	..	..	..		

**Table 1**  
**Historical Groundwater Elevation and Analytical Data**  
**Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged P/NP	
MW-6	08-09-96	37.11	Not surveyed			08-09-96	Not sampled: Car parked on well											
MW-6	11-06-96	37.11	Not surveyed			11-06-96	Not sampled: Car parked on well											
MW-6	03-24-97	37.11	13.06	ND	24.05	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--			
MW-6	05-27-97	37.11	14.30	ND	22.81	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--			
MW-6	08-07-97	37.11	16.40	ND	20.71	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--			
MW-6	11-10-97	37.11	16.53	ND	20.58	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--			
MW-6	02-16-98	37.11	Not surveyed			02-16-98	Not sampled: Car parked on well											
MW-6	04-15-98	37.11	10.95	ND	26.16	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--			
MW-6	07-24-98	37.11	13.30	ND	23.81	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--			
MW-6	10-19-98	37.11	Not surveyed			10-19-98	Not sampled: Car parked on well											
MW-6	01-28-99	37.11	13.92	ND	23.19	01-28-99	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--			
MW-6	06-25-99	37.11	15.47	ND	21.64	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--	0.74	NP	
MW-6	08-25-99	37.11	15.39	ND	21.72	08-25-99	<50	<0.5	3.4	0.6	3.7	△	--	--	--	0.92	NP	
MW-6	11-10-99	37.11	14.92	ND	22.19	11-10-99	<50	<0.5	<0.5	<0.5	<1	△	--	--	--	0.31	NP	
MW-6	02-09-00	37.11	13.30	ND	23.81	02-09-00	<50	<0.5	0.9	<0.5	1.3	△	--	--	--	0.79	NP	
MW-7	03-21-96	38.68	13.32	ND	25.36	03-22-96	32,000	870	450	970	4,900	280	--	--	--			
MW-7	05-24-96	38.68	14.58	ND	24.10	05-24-96	22,000	570	40	42	1,900	<200[2]	--	--	--			
MW-7	08-09-96	38.68	15.33	ND	23.35	08-09-96	14,000	390	<10	180	470	<200[2]	--	--	--			
MW-7	11-06-96	38.68	16.95	ND	21.73	11-06-96	9,500	440	<10	210	150	<100[2]	--	--	--			
MW-7	03-24-97	38.68	14.65	ND	24.03	03-24-97	6,400	420	<10	260	13	480	--	--	--			
MW-7	05-27-97	38.68	15.58	ND	23.10	05-28-97	5,000	420	<5	230	10	460	--	--	--			
MW-7	08-07-97	38.68	17.10	ND	21.58	08-07-97	3,900	350	<5	200	10	330	--	--	--			
MW-7	11-10-97	38.68	18.05	ND	20.63	11-10-97	5,600	590	10	370	43	540	--	--	--			
MW-7	02-16-98	38.68	12.03	ND	26.65	02-16-98	<5,000	390	<50	<50	61	4,300	--	--	--			



**Table 1  
Historical Groundwater Elevation and Analytical Data  
Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111  
1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation	Depth to Water	Free Product Thickness	Groundwater Elevation	Water Sample Field Date	TPHG LUFT Method	Benzene EPA 8021B*	Toluene EPA 8021B*	Ethylbenzene EPA 8021B*	Total Xylenes EPA 8021B*	MTBE EPA 8021B*	MTBE EPA 8260	TRPH EPA 418.1	TPHD LUFT Method	Dissolved Oxygen	Purged/Not Purged
		ft-MSL		feet			feet	ft-MSL	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	mg/L
MW-7	04-15-98	38.68	13.02	ND	25.66	04-15-98	<10,000	<100	<100	<100	<100	8,900	--	--	--		
MW-7	07-24-98	38.68	14.18	ND	24.50	07-24-98	5,800	180	<50	74	<50	4,200	--	--	--		
MW-7	10-19-98	38.68	15.99	ND	22.69	10-19-98	<2,500	54	<25	72	<25	3,000	--	--	--		
MW-7	01-28-99	38.68	15.69	ND	22.99	01-28-99	4,500	560	250	<50	94	6,200	--	--	--		
MW-7	06-25-99	38.68	15.36	ND	23.32	06-25-99	3,900	520	160	46	100	45,000	63,000[3]	--	--	0.56	NP
MW-7	08-25-99	38.68	16.71	ND	21.97	08-25-99	3,400	730	77	51	110	62,000	76,000[3]	--	--	0.90	NP
MW-7	11-10-99	38.68	16.76	ND	21.92	11-10-99	15,000	340	19	13	20	55,000	91,000[3]	--	--	0.37	NP
MW-7	02-09-00	38.68	14.45	0.03	24.25 [1]	02-09-00	Not sampled: free product present										

ft-MSL: elevation in feet, relative to mean sea level  
 TPHG: total petroleum hydrocarbons as gasoline, California DHS LUFT Method  
 MTBE: Methyl tert-butyl ether  
 TRPH: total recoverable petroleum hydrocarbons  
 TPHD: total petroleum hydrocarbons as diesel, California DHS LUFT Method  
 \*: EPA method 8020 prior to 11/10/99  
 EPA: United States Environmental Protection Agency  
 μg/L: micrograms per liter  
 mg/L: milligrams per liter  
 ND: none detected  
 --: not available or not analyzed  
 <: less than laboratory detection limit stated to the right  
 [1]: [corrected elevation (Z')] = Z + (h \* 0.73) where: Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water  
 [2]: chromatogram fingerprint is not characteristic of diesel  
 [3]: also analyzed for fuel oxygenates  
 [4]: this value is suspected to be erroneous based on subsequent check by bailer (following day). See discussion

**Table 2**  
**Groundwater Flow Direction and Gradient**

**ARCO Service Station 2111**  
**1156 Davis Street, San Leandro, California**

<b>Date Measured</b>	<b>Average Flow Direction</b>	<b>Average Hydraulic Gradient</b>
08-01-95	NR	NR
12-14-95	West	0.002
03-21-96	West-Southwest	0.005
05-24-96	West	0.003
08-09-96	West-Northwest	0.01
11-06-96	West-Northwest	0.007
03-24-97	West	0.005
05-27-97	North-Northwest	0.006
08-07-97	West	0.009
11-10-97	West	0.002
02-16-98	South-Southwest	0.013
04-15-98	West-Southwest	0.014
07-24-98	Northwest	0.01
10-19-98	West	0.008
01-28-99	Southwest	0.01
06-25-99	North-Northwest	0.017
08-25-99	West-Northwest	0.005
11-10-99	West-Southwest	0.002
02-09-00	West-Northwest	0.015

NR: not recorded

**ATTACHMENT D**

**ERROR CHECK REPORTS AND EDF/GEOWELL SUBMITTAL  
CONFIRMATIONS**

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**ARCO # 02111**  
 1156 DAVIS ST  
 SAN  
 LEANDRO, CA 94577

**Regional Board - Case #: 01-1903**  
 SAN FRANCISCO BAY RWQCB (REGION 2) - (RDB)  
**Local Agency (lead agency) - Case #: 744**  
 ALAMEDA COUNTY LOP - (AG)

#### SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	8
# FIELD POINTS WITH DETECTIONS	7
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	5
SAMPLE MATRIX TYPES	WATER

#### METHOD QA/QC REPORT

METHODS USED	8260FA
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- 8260FA REQUIRES DBFM TO BE TESTED	
- 8260FA REQUIRES BR4FBZ TO BE TESTED	
- 8260FA REQUIRES BZMED8 TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

#### QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

#### WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	N
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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**Facility Global ID:** T0600101764  
**Facility Name:** ARCO # 02111  
**Submittal Title:** 3Q 2005 QMR EDF BP/ARCO SITE 2111  
**Submittal Type:** GW Monitoring Report

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<b>ARCO # 02111</b> 1156 DAVIS ST SAN LEANDRO, CA 94577	<b>Regional Board - Case #: 01-1903</b> SAN FRANCISCO BAY RWQCB (REGION 2) - (RDB) <b>Local Agency (lead agency) - Case #: 744</b> ALAMEDA COUNTY LOP - (AG)
---	---

<b>CONF #</b>	<b>TITLE</b>	<b>QUARTER</b>
4322682440	3Q 2005 QMR EDF BP/ARCO SITE 2111	Q3 2005
<b>SUBMITTED BY</b>	<b>SUBMIT DATE</b>	<b>STATUS</b>
Srijesh Thapa	10/25/2005	PENDING REVIEW

**SAMPLE DETECTIONS REPORT**

# FIELD POINTS SAMPLED	8
# FIELD POINTS WITH DETECTIONS	7
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	5
SAMPLE MATRIX TYPES	WATER

**METHOD QA/QC REPORT**

METHODS USED	8260FA
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- 8260FA REQUIRES DBFM TO BE TESTED	
- 8260FA REQUIRES BR4FBZ TO BE TESTED	
- 8260FA REQUIRES BZMED8 TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

**QA/QC FOR 8021/8260 SERIES SAMPLES**

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

**WATER SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	N
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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2111

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**ATTACHMENT E**  
**WELL REPAIR FIELD SHEETS**

# Repair Data Sheet

Client Arco # 2111 Date 8-11-05  
 Site Address 1156 Davis St., San Leandro  
 Job Number 050811AA1 Technician Andrew Adiroli

Inspection Point (Well ID or description of location)	Well Inspected, Cleaned, Labeled - No Further Corrective Action Required	Replaced Cap	Replaced Lock	Replaced Lid Seal	Check Indicates deficiency							Lid Not Securable By Design (List Type)	Well Not Inspected (explain in notes)	Deficiency Logged on Repair Order	Deficiency Remains Unconnected/Logged on Site Inspection Checklist	Partial Repair Completed/Outstanding Deficiency Logged on Repair Order	All Repairs Completed
					Casing	Annular Seal	Tabs / Bolts	Box Structure	Apron	Trip Hazard	Below Grade						
MWF-6							X										X
Notes: <u>Replaced well box</u>																	
Notes:																	
Notes:																	
Notes:																	
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